

WINDHAM FIRE DEPARTMENT MASTER PLANS: PAST HISTORY, CURRENT NEED

EXECUTIVE DEVELOPMENT

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ABSTRACT

This research project analyzed the fire department master planning, both current and past, for the Windham Fire Department. The research reviewed the previous master planning documents developed for the Town to determine whether or not plan implementation was achieved. The research also looked at the current state of the Town with specific interest in the areas of fire and EMS protection and the associated areas of a master plan that need to be included in the next submission of a plan.

This project employed the evaluative research method to the problem of an outdated and unused master planning process. The research sought to determine (1) what a master plan is, and (2) what the four most critical components of a master plan are.

The key parameter to the success of this project was the ability, as the senior fire officer, to conduct research relevant to the community and to localize all the issues identified with facts and figures that can be understood by the Government of the community.

The major findings of this research identified the areas of staffing, equipment and apparatus purchasing and fire department facilities, as the four most critical factors needed to complete a comprehensive master plan.

The recommendations resulting from the research include (1) evaluating the current status of the department based on NFPA 1500, (2) reviewing current purchasing plans for capital expenditures, and (3) the timely completion of a master planning document to make it relevant and useful.

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INTRODUCTION

This research paper is being presented in fulfillment of the requirements for the Executive Officer Development class required as part of the Executive Fire Officer Program at the National Fire Academy.

The topic for this research project was selected based on the current need of the Windham Fire Department (WFD) to develop a comprehensive master plan that will be accepted and implemented by the Town Administrator and Board of Selectmen.

Problem Statement: The Windham Fire Department master planning process is outdated and unused. The Town has spent thousands of dollars on outside consultants to write a comprehensive master plan, only to have it sit on a shelf and be ignored.

Currently, the Town relies on reactive management to control department growth, expenditures, and long range planning. Early master plans, some dating back to 1968, have never truly been evaluated or implemented. The lack of any type of long range forecasting by the Town is now being felt by the fire department. Call volume is increasing, facilities are over full, and the average age of the full-time staff continues to increase.

Purpose Statement: The purpose of this project is to determine the necessary components of a comprehensive fire department master plan so that it will be relevant and useful.

The research questions listed below begin to set the framework, which guide the purpose statement research. As in all research projects, there were certain limitations encountered. These limitations include (a) limited master plan research document resources at the Learning Resource Center (b) multiple and variable needs of fire departments in their plan development, and (c) many private sector manuals which do not reflect the structure or needs public service agencies, especially fire departments.

The evaluative research method was employed to answer the following questions:

1. What is a Master Plan?
2. What are the 4 most critical components of a master plan?

In the common private sector business, master plans are a standard component used for long range planning of issues such as finance, staffing, capital expenditures for equipment and facilities, and forecasting general business growth. They provide organized growth structures which, when planned and implemented appropriately, control costs and allow the business to keep up with demands.

The master planning process for the public sector, specifically smaller fire departments, has only recently been widely accepted as a real and important part of fire department management. Traditionally, many towns have had private consultants develop a “comprehensive Town-wide master plan” which does not take into account realistic growth of the community, the department, or the costs associated with that growth.

BACKGROUND AND SIGNIFICANCE

The Town of Windham is located in the southeastern corner of New Hampshire. It is a mostly residential community and is considered an official suburb of Boston. The Town boundaries cover 27 square miles of old farmland, historic buildings, rolling hills, dense wooded areas, delicate wet lands, and many lakes and ponds. During the last 15 years, the development of the Town has been rapid. Interstate 93, the main north/south highway in the State dissects the community. In addition, the secondary north/south routes as well as the primary east/west travel corridor pass through Windham. This easy access to Town coupled with its tremendous beauty and low tax rate has spawned amazing development. Windham has the highest average housing cost in the State, currently at \$300,000 (Norman Interview). The average home being built is at least 3500 square feet of living space, with some as large as 15,000 square feet (Norman Interview).

This rapidly growing community of 11,500 people is protected by a combination fire department consisting of 14 full time and 20 paid on call firefighters. Full time Firefighters work a “Canadian” shift of 2 – 10 hour days followed by 2 – 14 hour nights, followed by four days off. Three out of four shifts are staffed with a Lieutenant and two firefighters. The fourth shift has only a Lieutenant and a firefighter. The Chief, Deputy, and Fire Inspector work a standard 40-hour week. Firefighters operate out of one station located in the geographic center of Town that was built in 1947. The department provides fire protection, EMS with two transport ambulances, hazardous materials response, water rescue, ice rescue, inspection services, and public education to its

residents, with a 1999 budget of \$904,000.00. In 1998, the department responded to 1082 incidents, the second highest on record. This year, based on the current call volume, the department expects to respond to 1190 incidents, which equals a 10% increase.

One of the major components of fire protection within the Town is the lack of a town water supply. There is no central water or sewage system, and homes are required to have their own well and septic system. This in turn means there are no pressurized fire hydrants within the community unless they are owned and operated by a private concern. New commercial buildings have always been required to comply with all applicable NFPA and BOCA codes, which may require them to install private fire protection retention ponds and pump systems. Residential developments were not required, until recently, to provide any type of fire protection water supply. The Town now requires all developments to comply with NFPA 1231 for rural water supply requirements.

The Chief of the Fire Department, who is hired through a competitive process, as well as all other department heads, report to the Town Administrator. The Town Administrator, who is also hired through a competitive process, is in turn, held accountable to a 5 member Board of Selectmen, who are voted into office on a staggered 2 or 3 year term.

During the tenure of a previous chief, the Board of Selectmen established, as one of his goals, the development of a comprehensive fire department master plan. The plan was never completed due to his early resignation from the department. This master plan goal was passed to the current chief for completion. The goal, established by the

Board of Selectmen and Town Administrator David Sullivan, in correspondence to the Chief, dated March 24, 1999 specifically states:

Develop a comprehensive Master Plan for the Fire Department to include discussion on staffing, equipment and vehicle purchases, and water supply needs.

This research paper has a direct relationship to the Executive Development Class of the Executive Fire Officer Program at the National Fire Academy. As stated in chapter 10 of the student manual from the Executive Development Class, the terminal objective for the chapter is:

Given a conceptual understanding of Total Quality Management (TQM) and service quality principles, the students will be able to evaluate services provided by their organizations and develop strategies to improve organizational quality and service standards.

In short, understanding the departments' organization and the services they provide set the groundwork for the development of strategies for overall department improvement and growth. These strategies should be documented in a comprehensive master plan.

LITERATURE REVIEW

The literature review for this project was performed by, (1) examining master planning documents held by the Town of Windham, (2) reviewing reference materials cataloged in the Learning Resource Center at the National Fire Academy, (3) reviewing public sector master planning books cataloged in the Town of Windham Public Library, (4) reviewing fire service publications, and (5) investigating relevant information on the World Wide Web. Although there are many documents published regarding public sector planning, there were no fire department specific reference books at the public library. References available at the Learning Resource Center were limited in number and the references that were available were very specific to the community they were written for. In addition, many Learning Resource Center references were over five years old.

Some of the initial sources of sound reference materials were the previous Master Plans adopted by the Town of Windham. The Town-wide master planning process was officially started in 1968 with the development of the first master plan. The plan was made possible, in part, with financial aid through a Federal Grant from the Urban Renewal Administration of the Housing and Home Finance Agency, under the Urban Planning Assistance Program, authorized by Section 701 of the Housing Act of 1954, as amended. Thomas Associates, community planners, and the staff of the Office of Planning and Research of the New Hampshire Department of Resources and Economic Development wrote the plan. In the opening letter to the residents and officials of Windham, members of the planning board wrote:

This report represents the first comprehensive analysis of Windham's many assets and its potential: It reflects the dedication of Windham's citizens to plan forcefully for the future at a time when every community, large and small, is challenged by the new demands and pressures of a rapidly urbanizing society.

The many facts and statistics in this report will be of value to every town official and board. Specific proposals and recommendations offer guidelines for action, as Windham's citizens proceed, with confidence and determination, to make their community a more pleasant and prosperous one for themselves and their children.

The Town of Windham Planning Board accepted the referenced master plan on February 25, 1970, almost two years after completion, and they stamped it with the following:

Windham Planning Board

Adopted February 25, 1970

as a GUIDELINE and REFERENCE ONLY

This is an unfortunate ending to what appeared to be a very promising beginning. The forefathers of the Town had great vision and leadership. Their vision was stalled in committees, over reviewed and under used, tabled for over a year, and then finally adopted as a generic reference.

Careful examination of the previous Town-wide master plans reveals a true desire to plan for the future; to truly be leaders and not followers within the State, and across the country.

The 1968 master-planning document, which appeared to be futuristic for its time, became a paperweight. It was set on a shelf, referenced upon in verbiage when it was politically correct, and never implemented to its true potential. A second master plan, essentially an update and re-write of the 1968 plan was formally accepted on November 7, 1985. Since that time, no additional formal planning has been performed. The establishment of a master plan goal for the Fire Department is the first step towards a new Town-wide master plan.

From the fire department prospective, safety is of prime importance. Safety, based on individual priorities, has many faces. It could mean the building housing the apparatus and personnel, the type of personal protective equipment used, the level of training provided, shift staffing, or even the age of the apparatus.

Many articles and regulations are geared toward safe operating procedures. The recent NIOSH Alert states:

Ensure that at least four firefighters are on scene before beginning interior fire fighting at a structural fire (two firefighters inside the structure and two out-side). (NIOSH, 1999)

As we enter the 21st century, many new opportunities are opening to the fire service. Planning gives departments the ability to capitalize on these opportunities, if they are ready. Without planning, operations are reactive. If you don't think about how quickly the community is growing or how call volume is increasing, you can't even begin to prepare for the future. Frequent assessments and course corrections must be built into the way we do business (Paulsgrove, 1999).

Consider careful planning an important key to success. For example, a fire service officer must always think of tomorrow and beyond. Although the bulk of the work is dealing with current matters, there is much important work to be accomplished at some later date. For example, the chief's most important work concerns long range planning so that the department will be able to fulfill its needs for many years to come. (Carter, 1989).

Resource allocation plays an important role in planning. The best-laid plans will fall by the wayside if the voters do not provide funding. For fire departments to receive sufficient public support they will need to change in ways that make a positive difference to those who control the resources (Bachtler, et al, 1995 p. 1131).

History and tradition also play an important role in planning. When a long-range plan is being prepared, the rank and file of the department should be involved. In order to plan appropriately, change may be in the future. Even if the staff is not involved in the plan, they are sure to know it is being worked on. Change on this level can cause some serious problems. The planning process under way by management may not be on the same course envisioned by the firefighters. Whenever fire departments become more intrinsically involved in the many disciplines that influence public safety, then the helping power of "fire protection" grows, and so too does the perception that fire departments are an essential and key element in the community protection package (Bachtler, et al, p. 1134).

Many towns in New Hampshire still use the "Town Meeting" form of budget adoption. One Saturday every March, voters gather at the local school for an all day meeting. Tempers flare, presentation is 90% of the battle, and entire budgets are

approved or rejected by a show of hands. If this forum is the first opportunity the voters have to see and hear your plan, you better have a backup. Community involvement and “buy-in” is crucial to success in the future. In order for people to believe, you must know your town, its hazards, any special needs, and present clear objectives. You must also know the current status of your own department. Types and ages of equipment, call volume, fire losses, and line item budget statistics are valid questions you may have to answer. Future planning inherently mandates a review of today and yesterday.

Appendix A and B show some examples of the information needed in any public presentation. The tables and charts show call volume based on yearly and monthly comparisons, and the table in Appendix B shows the replacement schedule for small vehicles. This small vehicle replacement schedule was accepted last year by the Board of Selectmen and it allowed the department to purchase the appropriate small vehicles it has been requesting for the last 5 years (Fruchtman, 1998).

Today, fire service agencies are marching to a different beat. Accreditation is the buzzword in upper management conference rooms. Accreditation is a complex set of procedures and policies that must be established based on certain criterion. The Fire and Emergency Service Self-Assessment Manual published in 1997 by the Commission on Fire Accreditation International requires the following:

Criterion 2D: Strategic or Long Term Master Plan

There is a “strategic” or other form of long term (3 to 5 years in the future) planning process that, along with the budget, is guiding the activities of the agency. The plan has been submitted to the appropriate authority having jurisdiction.

Another definition used for planning comes from John M. Bryson. He states that strategic planning is “a set of concepts, procedures and tools designed to assist leaders and managers in exercising control, coping with change and developing a basis for decision making” in his book Strategic Planning for Public and Nonprofit Organizations.

Are master plans and strategic plans one in the same? The apparent answer is no. The term master plan has been traditionally associated with Town-wide planning while the term strategic planning only involves one facet of the town, such as the fire department.

The following reference sums up the planning process quite neatly.

Each community has a set of conditions unique to itself; it cannot be assumed a system of fire protection that works well for one community will work equally well for other communities. To be adequate, the fire protection system must respond to local conditions, especially to changing conditions. Planning is the key; without local-level planning, the fire protection system is apt to be ill suited to local needs and unadaptable to the changing needs of the community (Cote, et al, 1991, p.10-47).

PROCEDURES

This research was initially started to provide the basis for a new fire department master plan. Previous town plans were reviewed as well as publications from many different sources. The current status of the fire department was reviewed in areas such as staffing, historical call volume, past equipment and apparatus purchases, and the earliest attempts to plan for the expansion of the community.

Research for this paper was conducted over a 3-month period. It included the review of documents, some prepared by the author, which have taken up to two years to compile. This research was broken down into three phases:

Phase – 1 This phase involved gathering information contained in previous town plans, fire department and town budgets, assessing and tax statistics, fire service and private business trade journals and text books, and previous reports generated for the purpose of long range planning.

Phase – 2 This phase involved assembling all the information into the categories presented. When voids were identified, additional research was conducted, including interviews to fill in the information.

Phase – 3 This phase involved the full compilation of the information gathered. Draft reports were generated and reviewed by members of the department and those people interviewed for accuracy. References cited were double-checked for content and accuracy, and form was reviewed based on the requirements of the National Fire Academy and the American Psychological Association.

The author conducted all phases of the research. Those people interviewed were selected based on their current or previous job within the town and for their intimate

knowledge in certain areas. Lieutenant William J. Brown was interviewed because he was one of the first three full-time employees of the department, and the only one still working today. He has worked for every full-time chief the department has had, and he has been a vital link between management and labor. Ms. Joan Tuck was interviewed due to her current position as Town Clerk and her previous position as a call firefighter with the department. Ms. Tuck has been the Town Clerk for the last 15 years. She is responsible for all town vital statistics, including voting at town meetings. Despite the towns' population of almost twelve thousand, Ms. Tuck still knows a daunting amount of people by first name. The third interview was conducted with Mr. Rex Norman. Mr. Norman is the current Tax Assessor for Windham. He is responsible for property valuation, setting the tax rate, and all statistics associated with housing numbers, values, transfers and sales.

The major limitation was the challenges faced in planning which are specific to the community. Many books and journals discuss generic applications of the planning process but for obvious reasons are extremely generic. The test is to review the guidelines and place them into a usable format for your community.

RESULTS

During the literature review, answers to the research questions presented in the introduction were sought.

1. What is a master plan?

A master plan is designed to enable the Town to meet objectives by providing a systematic approach. Updating and revision of maps and ordinances, plans and recommendations, suggestions for organizational changes and capital budgeting all will, if followed as a guide, give Windham a sound basis for future development (Comprehensive Town Plan, 1968).

This definition, although vague for general use, has specific merit to the community. It defines the earliest attempt to plan for the future, and the realization of an ever-expanding community. Unfortunately, it does not address the specific needs of the fire department. In the 1968 plan, less than two pages out of the 167-page plan address the needs of the fire department.

As the community grew, so did the definition of a master plan. The Windham Master Plan is designed to guide the future development of the community. It is meant to embody the Town's "philosophy" and rationale regarding when, where, and how the future development should take place, based upon the needs and desires of the Town, balanced with those of the region. ... It concludes with a set of recommendations, which outline a course of action designed to achieve or sustain the established goals as the Town continues to grow and develop. ... More importantly, any community in the midst

of the type of growth and change affecting Windham needs to take the time to examine and plan for its future (Windham Master Plan, 1985). This 1985 plan only contains four paragraphs relating to the fire department, 3 of which review current status, and 1 which contains very general recommendations for the future needs of the department.

In the State of New Hampshire, the Revised Statutes Annotated (RSA) serves as the basis for laws which communities must follow. RSA 674:18 mandate the local Planning Board to develop and use a master plan in all municipalities which have a zoning ordinance. This Statute clearly states that without a master plan, there can be no zoning ordinance.

The courts have gone even further, saying that only a master plan, which is the result of careful study and has a sound scientific and statistical basis, will be legally sufficient to support zoning (Windham Master Plan, 1985).

In New Hampshire, the property tax structure is the single largest revenue source for Towns and the State. There is no State income tax or sales tax. Although the schools receive revenue funds from the Town, they are, for the purpose of taxing, a separate entity. The fire department therefore, is the second largest budget town-wide, with the police department being first (Town Report, 1998). Since Public Safety constitutes 40% of Town expenditures, it would seem logical that when a town needs to write a comprehensive master plan, public safety should be a large part of future planning. Police and fire hold the largest number of full-time employees and therefore the largest payroll, have the largest Capital Improvement requests for buildings and equipment (CIP, 1999), and require more funds for training than any other town department.

As the plan grew larger and more detailed, many new aspects of Town planning were incorporated. Many of the new aspects contained changes the town could make without any cost associated to them. Although land use requirements are of vital importance to any community, they are free to enact. The planning requirements associated with town services all have a cost associated with them. As staff or facilities increase in size, so do operating costs. This in turn has a direct impact on the tax rate of the community. Many citizens verbally support the concept of increased services based on the plan, but when it comes to approve the service increase, and therefore the tax increase, it is traditionally voted down.

2. What are the 4 most critical components of a master plan?

The answer to this question will specifically address those areas of fire department operations, which need to be included in a comprehensive master plan.

Critical has a different meaning to different people. Those areas determined critical in this paper might not even be of concern to a larger fire department. Critical factors used here are based on a 15-year review of department operations and how they impact the budget. Unfortunately, the size of the budget increase has a direct bearing on acceptance. Not necessarily by the general voting population, but by the Board of Selectmen during their initial budget review with the department. Over the last 5 years, the budget presented by the fire department to the voters was accepted, almost without question. It has been the Board of Selectmen who have consistently reduced the operating budget submitted by the department. One of the main reasons for

reduction has been the lack of a formalized plan for the department and, quite frankly, the lack of education given to the Board of Selectmen by the fire department.

As the correspondence to the Chief in March indicates, the Selectmen have established what areas or topics they consider being an intricate part of a comprehensive plan. These areas or topics however, are driven strictly by their impact to the line item budget. The current Board of Selectmen does have a greater grasp on the need for formalized planning. Many of them are business professionals who have been intimately involved with long range planning projects and they have the vision of leaving the town in a better position than when they were elected.

Prior to completing this paper, the Town approved 1.9 million dollars to build a state of the art fire station. The construction planning process took over two years to complete and involved many people. The new station is a replacement for the current station and not an additional one for the community. It is anticipated that the station will last 100 years due to the size and construction. At first glance, it appears that facilities planning need not be included as a critical component of a master plan. It must though, continue to be a critical component because the impact of apparatus and staffing may have a significant contribution to the need for a new or additional facility.

Listed below are the four critical components of a master plan. Within each component are sub-topics that may serve as the basis for inclusion and justification as a component for a master plan.

STAFFING – This component is listed first due to the important role it plays in all aspects of fire department operations. The National Fire Protection Association (NFPA),

the Occupational Safety and Health Administration (OSHA) and State agencies address adequate staffing levels. Safe operations, which are inherently driven by safe staffing levels, the focus of many agencies efforts. NFPA 1500, Fire Department Occupational Safety and Health Program, has been available for over 10 years. This comprehensive document address many operational issues, including staffing. It states:

Operations shall be limited to those that can be safely performed by personnel available on scene.

What this means to smaller combination and volunteer departments is that many important tasks, some which involve life safety, may not be conducted until additional personnel are on scene. Without adequate staffing at the station ready to respond, those operations may have to wait a considerable amount of time for additional personnel to assemble.

Staffing has been a longstanding issue at Windham Fire. Windham hired its first full-time firefighter in 1963 to work days and maintain the equipment. In 1974, the department began providing 24 hour coverage using 3 full-time personnel and a paid on call staff (Brown interview). In 1978 additional full-time firefighters were added to bring each of three shifts to two firefighters. In 1986, 2 firefighters were hired to work four-12 hour days, 7 a.m. to 7 p.m. on opposite schedules. In 1988, the last firefighter needed to allow all shifts to be staffed with three firefighters was hired. At that time, the town changed shifts from a 56 hour work week to a 42 hour work week, and one firefighter was reassigned to a day shift to perform fire prevention / inspection activities. Once again, shift staffing was reduced. If the current “plan” is followed, the new, last firefighter will be hired in March of 2000 to bring all shifts to 3 firefighters. Also included in the

2000 budget is the funding necessary to replace all firefighters when they take time off. This system greatly enhances the staffing level of the department, but it is still far from the 4-person shift so many regulations and standards address.

Staffing, by its inherent nature needs to be a master plan critical component. Safety is the obvious responsibility for staffing, both for the citizens we protect and the people we employ. But staffing takes on a life of its own in the budget process. In 2000, the staffing cost projections total \$ 601,895.00 or 61% of the total operating budget (FD Budget Projections, 2000). If four additional firefighters were added to the budget to bring staffing levels to four personnel per shift, that would increase the salary, based on 2000 projections by 20% or \$ 122,276.00. That would increase the overall budget by 12% bringing it to 1,105,061.00 in 2000. Those figures do not include the replacement costs of all firefighters when they take time off of work. To embark on such a task of hiring without setting the groundwork in a plan would be political suicide for any fire chief.

The last component of staffing is best illustrated in the IAFF Staffing for Survival video. The chart below show the results of a Dallas Texas fire department experiment comparing identical tasks performed with different staffing levels. Tasks included fire confinement, search and rescue, and establishment of a water supply. Ironically, the study did not include two-person crews performing these tasks.

CREW SIZE	MINUTES TO COMPLETE IDENTICAL TASKS
Five-person crew	6.3
Four-person crew	8.5
Three-person crew	11.0

Today, the Windham Fire Department still covers the community with a staff of 2.

EQUIPMENT PURCHASES – This critical component is listed second, again due to the important role it plays in all aspects of the fire service, especially safety. The changes and advances in technology have provided great equipment specifically design for the fire service. These equipment advances include structural firefighters protective clothing, lightweight and safer self contained breathing apparatus, thermal imaging cameras, construction advances in general fire fighting tools.

The advances in technology come with a significant price tag. A recently purchased Bullard Thermal Imaging Camera with remote video cost the department \$21,800.00. A new set of protective clothing costs \$ 850.00 without new boots, gloves, or a helmet. A fully compliant SCBA costs over \$ 2500.00.

All equipment, including specially designed fire service equipment has a life expectancy. Traditionally, when placed in the hands of firefighters, equipment life expectancy is severely reduced. A realistic replacement program needs to be included in a master plan so that the voters and the local government are not surprised when they see the request for equipment. Surprise at a budget hearing may mean instant reduction in funds.

Using protective clothing as an example, imagine replacing 30 sets of protective clothing at \$ 850.00 per set. The total of \$ 25,500.00 represents 2.5% of the 2000 budget. It has been our experience that front line clothing needs to be replaced on a four-year cycle. That would mean 2.5% of the budget every four years. Our current system allows the purchase of 5 sets of gear every year. This system amounts to \$ 4250.00 per year or 0.40 % of the budget. This number is so insignificant that it does not even generate any questions during budget review.

All major equipment components of a line item budget should be placed into a plan. Constant replacement to keep up with advances in technology and safety are too important not to plan. Items such as mobile and portable radios, ambulance equipment, SCBA's, rescue tool, and even hose should all be part of a replacement plan.

APPARATUS PURCHASES – This item is considered a critical component due to the shear magnitude of replacement costs of apparatus. Long range planning in this area shows the ability of the department to be fiscally responsible while at the same time, providing the employees and the citizens the necessary equipment needed to perform the tasks specific to the community.

Depending on the cost of vehicles, some, such as command vehicles, can be placed in the yearly-operating budget. Others, such as new engines or tankers must be planned for. In Windham, long range capital expenditures, those over \$ 50,000.00, must be submitted to the Capital Improvement Projects (CIP) committee for approval. The CIP committee, who operate as a sub-committee of the planning board, look at all requests from the Town, rank the importance of the requests, at try to place them as

close as possible to the year requested. Final approval lies with the voters at Town Meeting.

Appendix C shows the most recent fire department submission to the CIP. The requests for fire apparatus over the next four years total \$ 690,000.00. When the CIP approves the submission and recommends it to the voters, it will pass (Tuck, 1999). Without the plan, the fire department would need to place the appropriate funds needed for the apparatus in the line item budget in the year needed. This huge fluctuation would be a recipe for budget disaster. There would be a reasonable increase one-year, a reduction in the budget the next year, and an overwhelming increase in the third year.

FACILITIES – This is the fourth and final critical component to the master planning process. The term facility has the potential to mean many things. It includes the main station where crews and equipment are housed, a separate storage garage for small equipment, the training facility for the community, or even a separate administrative building dedicated just for staff personnel.

The planning process for facilities can be tremendously complicated. It involves research of adequate land for a building, review of other stations for layout and design, compliance with local and state building codes and planning issues, and the formation of a committee to spearhead the process. Architectural design is an important factor to consider early in the process. The historical aspect of the community, exact location of the building, and looks coupled with functionality are considerations that many voters who will approve the final plan are concerned with.

In order to justify the capital expenditure of, quite possibly, millions of dollars, all facets of the current facility, as compared to the new facility, need to be reviewed. Changes in the building codes (BOCA), life safety codes (NFPA) and special access codes, such as the American with Disabilities Act (ADA) must be address early in the process. The cost of code compliance in a new building can account for over 20% of the new construction costs (FD Building Committee Proposals 1998).

One way to show the need for a new facility is to have any impartial third party inspect the existing one. During the planning stages of construction, the Insurance Carrier for the Town and the State of New Hampshire Department of Labor conducted facility inspections (Appendix D). The inspection results were a driving force in the presentation of need for a new facility. When presented, voters were asked to think about the building they work in and whether or not it had air conditioning, fire sprinklers, well lit work areas, and adequate exit doors. Those very common features were absent in the existing station. As people though about their work environment, they were appalled to think about working in an environment without certain “necessities” that they had grown accustomed to.

The process takes hundreds of hours of personal time from all committee members. Scheduling inspections of the current building as well as viewing other stations, needs to be planned well in advance. Presentation to the town Planning Board may have to wait months (Planning Board Schedule, 1999) for review. Once it is placed on the schedule, there are sure to be questions and clarifications that need to be made at some later date. Plans must be drawn, bid packages must be sent and reviewed, bidders must be interviewed, final recommendations made, and once selected, the

construction company may have their own timetable of availability. Without long range planning in this area, the project is destined for failure.

DISCUSSION

During the research for this paper, it became evident that there is no finite definition of the planning process. The terms' master plan and strategic plan were used interchangeably in the referenced documents. Generic statements of need and procedure were the strongholds of every reference. Generalization was common, but justly so. It would be impossible for any author to customize local needs and recommendations without spending a tremendous amount of time in the community. The common message is that planning is an important part of the fire service today, but it needs to address community specific needs.

Fire agencies do not just live for the moment. They exist to provide a service over the life cycle of a community. So, it follows that fire service agencies should have a portion of their time spent on planning for the future, a period of time devoted to creating and implementing programs, and a proper amount of time devoted to nourishing growth and development of personnel if they expect to celebrate accomplishments as part of their annual activities. (Bachtler, et al, 1995, p. 13)

The study of this topic resulted in the realization that many concerns realize planning is a critical issue. State agencies, Federal laws, local politics, private consultants, and many fire services related textbooks all show the need for strategic planning. These

agencies and references all stress planning as an important issue, but some fail to realize or identify the difficulties associated with this important function. Other references cite the importance of planning and its relationship to success. Consider careful planning an important key to success. For example, a fire service officer must always think of tomorrow and beyond (Carter, p. 6).

In the second edition of *Management In The Fire Service*, the author discusses the management cycle of Henri Fayol. They quote him as saying; Planning sets the aim and charts the course. Anything that is done haphazardly without a plan is likely to be less than satisfactory, whether it is painting the kitchen, managing a business, or attacking a fire (Carter, p. 39). This again, is a reference to the important need for planning, but it gives no insight on how to accomplish this task.

The interpretation of the results proves to be quite interesting. In comparing the original 1968 plan developed to chart the future course of Windham and the thoughts of the authors of more recent fire service publications, they all state the need for master planning and some even list what they consider to be important components. None of the documents provide specific direction on how to accomplish the task. So many of the components and the actual need for master planning is developed on a very local level. The forms of local government differ as much as the size of the department and the type of community it protects.

At the local level, planning must be an inherent requirement of the Town Administrator. As the senior management representative to the Board of Selectmen, it is the Town Administrator's role to assure that all departments prepare for the future of the community. Planning is an ongoing process. A competent person, working towards

reaching goals, will think of goals at all times and the plans to achieve those goals (Carter, p. 123).

A documented plan is a superb learning tool for an organization. A course, which has been set and documented, can be continuously reviewed and a new position defined. Past experiences, both good and bad are part of the learning and growing process of an organization. The ability to plan for the future, especially by reviewing the past, must be part of the organizational process.

The implications of this study are far reaching. By providing the documented need for a comprehensive master plan and identifying the necessary components, the senior level management of the community should be obligated to prepare adequately for the future. If they do not use the information provided to them, they may not place the needs of the residents as a priority. Fiscal responsibility in our property tax driven State dictates the need for master planning, not only for the fire department, but also for the community as a whole.

RECOMMENDATIONS

After conducting the research and reviewing the available subject material, it is apparent that a significant effort needs to be placed on the completion of a comprehensive fire department master plan. Due to the many issues listed in the background section, such as rate of town growth, value and size of residential homes, and the lack of a town-wide fire protection system, a comprehensive plan is needed to chart the future of the department. Issues, such as staffing, are truly a health and safety concern for the residents and the firefighters. The implications of hiring the necessary

staff, purchasing the necessary capital equipment, and providing a complete fire and emergency medical service to a rapidly changing community are daunting, especially if there is no plan on how to accomplish it.

The following list of recommendations is presented in an effort to guide the process of master plan development.

1. Evaluate the current status of the department using guidance documents, such as NFPA 1500, the Self Assessment Manual, and the statistics available from within the department, such as call volume, types of calls, number of firefighters returning for callbacks, etc.
2. Review the current purchasing plans for capital equipment. Assure it meets the demands of the department based on the results from recommendation 1.
3. Complete, within the next six months, a formal master plan with sections containing a discussion on staffing, equipment purchases, apparatus purchases, and facilities.
4. Review the new plan with the Town Administrator and the Board of Selectmen.
5. Present the plan to the public. Assure that their needs have been addressed and that they will accept and support the plan.
6. Implement the plan.

The non-use of previous planning documents has created a sense of wasted time and money. The development of the new plan must be accomplished in a timely fashion, presented to the public for acceptance, and most importantly, it must be implemented.

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Appendices Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.fema.gov/> to learn how to obtain this report in its entirety through Interlibrary Loan.